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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Wendy Fong et al.

Serial No: 10/695,466

Filed: October 27, 2003

For: ELECTRIC BATTERY ASSEMBLY CONSTRUCTION AND METHOD OF MANUFACTURE

Art Unit: 1745

Examiner: YUAN, Dah Wei D.

MS Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

I. REAL PARTY IN INTEREST

The real party in interest is Quallion LLC the assignee of the above referenced application.

II. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known which will be affected by this appeal.

III. STATUS OF CLAIMS

The application under appeal includes pending claims 11-15, 28 and 29. Claims 11-15, 28 and 29 are rejected under 35 USC §103(a) as claiming being unpatentable over U.S. Patent No. 6,190,798 B1 (Okada et al.) in view of U.S. Patent No. 5,929,741 (Nishimura et al.) and U.S. Patent No. 6,753,605 B2 (Joshi). Claims 11-15, 28 and 29 are appealed.

IV. STATUS OF AMENDMENTS

A first Office Action on the merits was mailed on December 28, 2006. The Applicant filed a Response to that Office Action on March 27, 2007. However, that Response did not amend any of the claims. In response to the March 27, 2007 filing, a Final Office Action was mailed on May 9, 2007. The Applicant responded to the Final Office Action by filing a Notice of Appeal and did not file a Response After Final Rejection. This Appeals Brief results from that Notice of Appeal. There are no amendments submitted with this Appeals Brief. As a result, there are no un-entered amendments outstanding and the appealed claims are the claims present in the Response filed March 27, 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with 37 CFR § 41.37c(1)(v), Appellants provide a brief summary of each independent claim involved in the appeal, where each summary refers to the specification by page and line number and to the drawings by reference number. Appellants note that the citations in this "Summary of claimed subject matter" are provided to identify some portions of the specification related to the particular claims. In the interest of brevity, each claim summary does not necessarily include all references to all relevant portions of the specification and drawings. Accordingly, omission of any reference to the specification or to the drawings should not be construed in any way as an intent to relinquish claim scope, or as an implication or statement regarding the conformance with 35 U.S.C. §112. Appellants respectfully submit that the claims should not be construed as being limited to the embodiments cited in the claim summary, and further submit that other embodiments, as well as the Doctrine of Equivalents, may apply in determining claim scope.

Summary of Independent Claim 11

Claim 11 is the only independent claim being appealed. Claim 11 is directed to an energy storage device (Figs. 1 and 2). The energy storage devices includes a case (labeled 12 in Fig. 1) having an opening (Fig. 2 and page 5, line 11). An electrode assembly is in the case (labeled 16 in Fig. 2). The electrode assembly includes electrodes, the electrodes include one or more positive electrodes and one or more negative electrodes (page 5, lines 11-13 and page 10, lines 18-23). A cover (labeled 14 in Fig. 1, 4, and 4a) is configured to cover the opening of the case and includes a hole (labeled 28 in Fig. 4 and 128 in Fig. 4a). The cover is made of aluminum (page 8, line 14) and is electrically connected to one of the electrodes (page 3, lines 1-7; Fig. 6A-6D and page 5, lines 20-21).

A disk-shaped plug (labeled 30 in Fig. 4 and 130 in Fig. 4a) is configured to seal the hole (Fig. 4 and 4a). The plug includes aluminum (page 8, line 26-28) and is connected to the cover (Fig. 4 and 4a). A layer of a material (labeled 32 in Fig. 5A and 34 in Fig. 5B) other than aluminum is on a top surface of the plug (page 8, line 26-28, Fig. 5A-5B). The material is a metal or a metal alloy (page 8, line 26-28). The layer is in electrical communication with the

aluminum included in the cover (page 3, lines 9-11 and Fig. 5A-5B) so as to form a terminal of the energy storage device (page 9, line 4).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Rejection of Claims 11-15, 28 and 29 under 35 USC §103(a) as being unpatentable over Okada in view of Nishimura and Joshi.

VII. ARGUMENT

1. Rejection of Claims 11-15, 28 and 29 under 35 USC §103(a) as being unpatentable over Okada in view of Nishimura and Joshi.

Claims 11-15, 28 and 29 are rejected under 35 USC §103(a) as claiming being unpatentable over U.S. Patent No. 6,190,798 B1 (Okada) in view of U.S. Patent No. 5,929,741 (Nishimura) and U.S. Patent No. 6,753,605 B2 (Joshi).

Nishimura Is Non-Analogous Prior Art

In order "to rely on a reference under 35 USC §103, it must be analogous prior art." See header of MPEP §2141.01(a). Applicant submits that Nishimura is non-analogous art.

MPEP §2141.01(a) provides a two-part test for determining whether a piece of prior art is analogous prior art. First, "the reference must ... be in the field of the applicant's endeavor." MPEP §2141.01(a) also cites *Wang Laboratories, Inc. vs. Toshiba Corporation*, 993 F.2d 858, 26 U.S.P.Q. 2d 1767 (Fed. Cir., 1993). Applicant's field of endeavor is batteries while Nishimura's field of endeavor is fuses (See C1, L10-20 and particularly "such an elements generally called a fuse"). Since a fuse is not a battery, Nishimura is not in the applicant's field of endeavor and the Nishimura fails the first part of the test.

MPEP §2141.01(a) sets forth the second part of the two-part inquiry when it states that if the reference is not in Applicant's field of endeavor, it must "be reasonably pertinent to the particular problem with which the inventor was concerned." Further, a "reference is reasonably pertinent if ... it ... logically would have commended itself to an inventor's attention in considering his problem." See MPEP §2141.01(a) citing to *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

The "particular problem" addressed by the claimed invention is easily identified because the specification actually uses the word "problem" at page 8, line 22 and page 9, line 5. The claimed invention addresses problems associated with use of a tab to attach external circuits to the case of a battery (page 8, line 17-22). Further, the specification describes how the claimed structure addresses this problem at (page 9, line 3-6). In contrast, the Background, Summary, and Abstract of Nishimura show that Nishimura is addresses a variety of fuse problems,

especially problems associated with blowing of fuses. An inventor addressing problems associated with connecting external circuits to a battery would not consult a publication that solves fuse blowing problems. As a result, the inventors would not have consulted Nishimura in order to solve their problem.

Because Nishimura is both from a different field of endeavor and is not reasonably pertinent to the Applicant's problem, Nishimura fails both parts of the MPEP §2141.01(a) analogous art test. Because Nishimura is not analogous prior art, Nishimura is not available for use in a rejection of these claims under 35 USC §103 and the rejections should be withdrawn.

Joshi Is Non-Analogous Prior Art

In order "to rely on a reference under 35 USC §103, it must be analogous prior art." See header of MPEP §2141.01(a). Applicant submits that Joshi is non-analogous art.

MPEP §2141.01(a) provides a two-part test for determining whether a piece of prior art is analogous prior art. First, "the reference must ... be in the field of the applicant's endeavor." MPEP §2141.01(a) also cites *Wang Laboratories, Inc. vs. Toshiba Corporation*, 993 F.2d 858, 26 U.S.P.Q. 2d 1767 (Fed. Cir., 1993). Applicant's field of endeavor is batteries while Joshi's field of endeavor is "bumped wafers for chip devices" as disclosed in the Joshi's "Field of the Invention." Since "bumped wafers for chip devices" are not batteries, Joshi is not in the applicant's field of endeavor and the Joshi reference fails the first part of the test.

MPEP §2141.01(a) sets forth the second part of the two-part inquiry when it states that if the reference is not in Applicant's field of endeavor, it must "be reasonably pertinent to the particular problem with which the inventor was concerned." Further, a "reference is reasonably pertinent if ... it ... logically would have commended itself to an inventor's attention in considering his problem." See MPEP §2141.01(a) citing to *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

The "particular problem" addressed by the claimed invention is easily identified because the specification actually uses the word "problem" at page 8, line 22 and page 9, line 5. The claimed invention addresses problems associated with use of a tab to attach external circuits to the case of a battery (page 8, line 17-22). Further, the specification describes how the claimed structure addresses this problem at (page 9, line 3-6). In contrast, the Background of Joshi shows that Joshi is addressing "extra steps and increased processing expense in wafer manufacture."

An inventor addressing problems associated with connecting external circuits to a battery would not consult a publication that reduces the steps and costs associated with wafer manufacture. As a result, the inventors would not have consulted Joshi in order to solve their problem.

Because Joshi is both from a different field of endeavor and is not reasonably pertinent to the Applicant's problem, Joshi fails both parts of the MPEP §2141.01(a) analogous art test. Because Joshi is not analogous prior art, Joshi is not available for use in a rejection of these claims under 35 USC §103 and the rejections should be withdrawn.

The Cited Art Does Not Teach or Suggest Every Element of the Claimed Device

Claim 11 is directed to an energy storage device. Claim 11 recites "a cover ... defining a hole, ... a ... plug configured to seal the hole (and) ... a layer of a material ... on a top surface of the plug." As a result, in order to support a rejection of claim 11 under 35 USC §103, the cited art must teach or suggest a layer of material on a top surface of a plug configured to seal a hole in the cover of an energy storage device.

The Office Action analogizes Okada's sealing member 26 to the claimed plug. However, Okada does not teach or suggest a layer of material on a top surface of the sealing member 26. As a result, the required teaching or suggestion is not found in Okada.

The required teaching also cannot be found in either Nishimura or Joshi. Since Nishimura is directed to fuses, Nishimura does not even provide suggestions about the structure of energy storage devices. As a result, the required teaching cannot be found in Nishimura. Additionally, since Joshi is directed to bumped wafers, Joshi also fails to even suggest the structure of energy storage devices. As a result, the required teaching or suggestion also cannot be found in Joshi.

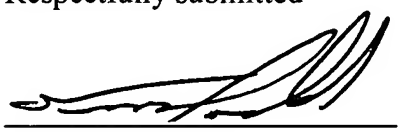
Since none of the cited art teaches or suggests a layer of material on a top surface of a plug configured to seal a hole in the cover of an energy storage device, claim 11 is patentable over the cited art.

Conclusion

Even if only one of the references cited in support of the pending rejection are non-analogous art, the pending rejection is not supported and should be withdrawn. Further, the cited art does not even teach or suggest every element of the claims. For this reason alone, the

pending rejection is not supported and should be withdrawn. However, when these arguments are considered together, the failure of the cited art to support the pending rejection becomes even more clear.

Respectfully submitted



TRAVIS DODD
Reg. No. 42,491
Agent for Applicant(s)

Quallion LLC
P.O. Box 923127
Sylmar, CA 91392-3127
818-833-2003 ph
818-833-2065 fax
travisd@quallion.com

VIII. CLAIMS APPENDIX

1.-10. (canceled)

11. (previously presented) An energy storage device, comprising:

a case having an opening;

an electrode assembly in the case, the electrode assembly including electrodes, the electrodes including one or more positive electrodes and one or more negative electrodes;

a cover configured to cover the opening of the case and defining a hole,

the cover being made of aluminum, and

the cover being electrically connected to one of the electrodes; and

a disk-shaped plug configured to seal the hole,

the plug including aluminum,

the plug being connected to the cover,

a layer of a material other than aluminum on a top surface of the plug,

the material being a metal or a metal alloy, and

the layer being in electrical communication with the aluminum included in the cover so as to form a terminal of the energy storage device.

12. (previously presented) The energy storage device of claim 11, wherein the layer of material has a melting point higher than the melting point of aluminum.

13. (previously presented) The energy storage device of claim 11, wherein the layer of material is selected from the group consisting of nickel, stainless steel, titanium, copper, and alloys thereof.

14. (previously presented) The energy storage device of claim 11, wherein the layer of material is in accordance with a layer deposited on the top surface of the plug.

15. (previously presented) The energy storage device of claim 11, wherein the layer of material is a metal cladding on the top surface of the plug.

16.-27. (canceled)

28. (previously presented) The energy storage device of claim 11, wherein the layer of material is in accordance with a layer deposited on the top surface of the aluminum.

29. (previously presented) The energy storage device of claim 11, wherein the layer of material is a metal cladding on the top surface of the aluminum.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.